

CLAIMSWhat is Claimed is:

- 1 1. A loop antenna system configured within a confined space having an
2 electronics printed circuit board, the loop antenna system comprising an antenna
3 member configured to communicatively coupled with an electronic circuit on the printed
4 circuit board and configured to provide a loop having at least one turn in a geometric
5 space substantially separate from the printed circuit board.
- 1 2. The loop antenna system of claim 1 wherein the antenna member is
2 configured to partially reside on an outer edge of the printed circuit board.
- 1 3. The loop antenna system of claim 2 wherein the antenna member on the
2 outer edge of the printed circuit board comprises a trace.
- 1 4. The loop antenna system of claim 1 wherein a turn of the loop comprises
2 a wire.
- 1 5. The loop antenna system of claim 1 wherein a turn of the loop is
2 configured to reside on a second printed circuit board.
- 1 6. The loop antenna system of claim 5 wherein the turn comprises a trace.
- 1 7. The loop antenna system of claim 1 wherein the antenna member is
2 configured to transmit or receive a radio frequency signal at a frequency substantially
3 less than 100 Mhz.

1 8. The loop antenna system of claim 1 wherein the loop is oriented to lay in
2 a plane substantially parallel to the circuit board.

1 9. The loop antenna system of claim 1 wherein the antenna member is
2 configured to provide a plurality of loops.

1 10. An antenna system comprising:
2 a first means for transmitting radio frequency signals configured to form a first
3 portion of a loop antenna having at least one turn; and
4 a second means for transmitting radio frequency signals configured to form a
5 second portion of the loop antenna in a geometric plane substantially
6 separate from the first means.

1 11. The antenna system of claim 10 wherein the first means comprises a wire.

1 12. The antenna system of claim 10 wherein the first means comprises a trace
2 on a circuit board.

1 13. The antenna system of claim 10 wherein the second means comprises a
2 trace on a second circuit board.

1 14. The antenna system of claim 10 wherein the second means comprises a
2 wire.

1 15. The antenna system of claim 10 wherein the first and second means
2 comprise a wire.

1 16. The antenna system of claim 10 wherein the first and second means
2 comprises a trace on at least one circuit board.

1 17. The antenna system of claim 10 wherein the separate geometric plane is
2 parallel to a plane described by the first portion of the loop antenna.

1 18. The antenna system of claim 10, wherein the antenna system is
2 configured to transmit or receive a radio frequency signal of less than 100 Mhz.